



VIA HAND DELIVERY MAY 22, 2003

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: **YU et al.**

Application Serial No.: 09/333,966

Art Unit: 1646

Filed: June 16, 1999

Examiner: Ulm, J.

For: Death Domain Containing Receptors

Attorney Docket No.: **PF267D1**

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**THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450,  
Alexandria, VA 22313-1450.

Sir:

In accordance with the duty of disclosure imposed by 37 C.F.R. § 1.56 to inform the Patent and Trademark Office of all references coming to the attention of each individual associated with the filing or prosecution of the subject application, which are or may be material to the patentability of a claim of the subject application, Attorneys for Applicants hereby direct the Examiner's attention to references AA-CE listed on the attached Form PTO/SB/08. Legible copies of references AA-CE are enclosed.

The above information is presented so that the Patent and Trademark Office can determine any materiality thereof to the claimed invention. See 37 CFR §§ 1.104(a) concerning the PTO duty to consider and use any such information. It is respectfully requested that the information be considered during the prosecution of this application.

Identification of the listed reference(s) is not to be construed as an admission of any individual associated with the filing or prosecution of the subject application that such references are available as "prior art" against the subject application. Furthermore, Applicants do not waive any rights to appropriate action to establish patentability over any of the listed documents should they be applied as references against the claims of the subject application.

Applicants respectfully request that the Examiner review the listed references and that the references be made of record in the file history of the application.

Pursuant to 37 C.F.R. § 1.97(b), since this information disclosure statement is being filed before the mailing date of a first Office Action on the merits, no fee is due in connection herewith. However, should the Patent Office determine otherwise, please charge the required fee to Human Genome Sciences, Inc., deposit account no. 08-3425.

Respectfully submitted,

Dated: May 22, 2003

  
Lin J. Hymel (Reg. No. 45,414)  
Attorney for Applicants

**Human Genome Sciences, Inc.**  
9410 Key West Avenue  
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(301) 251-6015 (phone)

Enclosure

KKH/LJH/BM/lcc



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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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*Complete if Known*

Application Number	09/333,966
Filing Date	June 16, 1999
First Named Inventor	Guo-Liang
Art Unit	1646
Examiner Name	J. Ulm

Attorney Docket Number PF267D1

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
AA	5,349,052	09/20/1994	Delgado et al.		
AB	5,478,925	12/26/1995	Wallach et al.		
AC	5,643,575	07/01/1997	Martinez et al.		

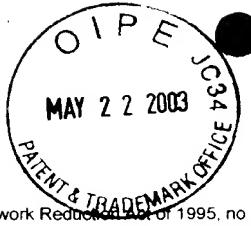
## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
AD	WO 95/06058	-	03/02/1995	Royal Free Hospital School of Medicine		
AE	WO 95/10540	-	04/20/1995	Immunex Corporation		
AF	EP 0 401 384 B1	-	12/12/1990	Kirin-Amgen, Inc.		
AG	WO 96/14328	-	05/17/1996	Human Genome Sciences, Inc.		
AH	WO 96/26736	-	09/06/1996	Ludwig Institute for Cancer Research and Helsinki Univ. Licensing Ltd., Oy		
AI	WO 96/34095	-	10/31/1996	Human Genome Sciences, Inc.		
AJ	WO 96/39515	-	12/12/1996	Human Genome Sciences, Inc.		
AK	WO 97/33899	-	09/18/1997	Human Genome Sciences, Inc.		
AL	WO 97/34911	-	09/25/1997	Human Genome Sciences, Inc.		
AM	WO 98/02543	-	01/22/1998	Chugai Research Institute for Molecular Medicine, Inc.		
AN	WO 98/06842	-	02/19/1998	Schering Corporation		
AO	WO 98/07832	-	02/26/1998	Ludwig Institute for Cancer Research and Helsinki Univ. Licensing Ltd., Oy		
AP	WO 98/07880	-	02/26/1998	Human Genome Sciences, Inc.		
AQ	WO 98/14565	-	04/09/1998	Immunex Corporation		
AR	WO 98/18921	-	05/07/1998	Human Genome Sciences, Inc.		
AS	WO 98/30693	-	07/16/1998	Human Genome Sciences, Inc.		
AT	WO 98/30694	-	07/16/1998	Human Genome Sciences, Inc.		
AU	WO 98/32466	-	07/30/1998	Polymasc Pharmaceuticals PLC		
AV	WO 98/41629	-	09/24/1998	Human Genome Sciences, Inc.		
AW	WO 98/49305	-	11/05/1998	Amgen, Inc.		
AX	WO 98/56892	-	12/17/1998	Human Genome Sciences, Inc.		
AY	EP 0 506 477 B1	-	09/30/1992	Merck & Co., Inc.		
AZ	WO 00/08139	-	02/17/2000	Human Genome Sciences, Inc.		
BA	CA 2,260,754	-	01/22/1998	Chugai Research Institute for Molecular Medicine, Inc.		

\*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See attached Kinds Codes of USPTO Patent Documents at \_\_\_\_\_ or MPEP 901.04 <sup>3</sup>  
 Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of  
 the Emperor must precede the application number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under  
 WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO				<i>Complete if Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				Application Number	09/333,966
Sheet	2	of	4	Filing Date	June 16, 1999
				First Named Inventor	Guo-Liang Y
				Art Unit	1646
				Examiner Name	J. Ulm
				Attorney Docket Number	PF267D1

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	BB	Arend, W.P. et al., "Binding of IL-1 $\alpha$ , IL-1 $\beta$ , and IL-1 Receptor Antagonist by Soluble IL-1 Receptors and Levels of Soluble IL-1 Receptors in Synovial Fluids," <i>J. Immunol.</i> 153:4766-4774 (1994)
	BC	Ashkenazi, A. et al., "Protection against endotoxic shock by a tumor necrosis factor receptor immunoadhesin," <i>Proc. Natl. Acad. Sci. USA</i> 88:10535-10539 (1991)
	BD	Beutler, B. and Cerami, A., "Tumor Necrosis, Cachexia, Shock, and Inflammation: A Common Mediator," <i>Ann. Rev. Biochem.</i> 57:505-518 (1988)
	BE	Boldin, M.P. et al., "A Novel Protein That Interacts with the Death Domain of Fas/APO1 Contains a Sequence Motif Related to the Death Domain," <i>J. Biol. Chem.</i> 270:7795-7798 (April 1995)
	BF	Boldin, M.P. et al., "Involvement of MACH, a Novel MORT1/FADD-Interacting Protease, in Fas/APO-1- and TNF Receptor-Induced Cell Death," <i>Cell</i> 85:803-815 (June 1996)
	BG	Caliceti, P. et al., "Biopharmaceutical Properties of Uricase Conjugated to Neutral and Amphiphilic Polymers," <i>Bioconjugate Chem.</i> 10:638-646 (August 1999)
	BH	Chinnaiyan, A.M. et al., "FADD, a Novel Death Domain-Containing Protein, Interacts with the Death Domain of Fas and Initiates Apoptosis," <i>Cell</i> 81:505-512 (May 1995)
	BI	Chinnaiyan, A.M. et al., "FADD/MORT1 Is a Common Mediator of CD95 (Fas/APO-1) and Tumor Necrosis Factor Receptor-induced Apoptosis," <i>J. Biol. Chem.</i> 271:4961-4965 (March 1996)
	BJ	Corti, A. et al., "Identification of an Epitope of Tumor Necrosis Factor (TNF)-Receptor Type 1 (p55) Recognized by a TNF- $\alpha$ -Antagonist Monoclonal Antibody," <i>Lymphokine Cytokine Res.</i> 13:183-190 (June 1994)
	BK	Delgado, C. et al., "The Uses and Properties of PEG-Linked Proteins," <i>Crit. Rev. Ther. Drug Carrier Systems</i> 9:249-304 (1992)
	BL	Deng, B. et al., "An Agonist Murine Monoclonal Antibody to the Human c-Mpl Receptor Stimulates Megakaryocytopoiesis," <i>Blood</i> 92:1981-1988 (September 1998)
	BM	Fiers, W. "Tumor necrosis factor," <i>FEBS Lett.</i> 285:199-212 (1991)
	BN	Francis, G.E. et al., "PEGylation of cytokines and other therapeutic proteins and peptides: the importance of biological optimisation of coupling techniques," <i>Intl. J. Hematol.</i> 68:1-18 (July 1998)

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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				First Named Inventor	Guo-Liang Yu
				Art Unit	1646
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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
	BO	Fu, M.L.X. et al., "Characterization of anti-peptide antibodies directed against an extracellular immunogenic epitope on the human $\alpha_1$ -adrenergic receptor," <i>Clin. Exp. Immunol.</i> 97:146-151 (July 1994)		
	BP	Goeddel, D.V. et al., "Tumor Necrosis Factors: Gene Structure and Biological Activities," <i>Cold Spring Harbor Symp. Quant. Biol.</i> LI:597-609 (1986)		
	BQ	Hahne, M. et al., "APRIL, a New Ligand of the Tumor Necrosis Factor Family, Stimulates Tumor Cell Growth," <i>J. Exp. Med.</i> 188:1185-1190 (September 1998)		
	BR	Hsu, H. et al., "The TNF Receptor 1-Associated Protein TRADD Signals Cell Death and NF- $\kappa$ B Activation," <i>Cell</i> 81:495-504 (May 1995)		
	BS	Hsu, H. et al., "TRADD-TRAF2 and TRADD-FADD Interactions Define Two Distinct TNF Receptor 1 Signal Transduction Pathways," <i>Cell</i> 84:299-308 (January 1996)		
	BT	Hsu, H. et al., "TNF-Dependent Recruitment of the Protein Kinase RIP to the TNF Receptor-1 Signaling Complex," <i>Immunity</i> 4:387-396 (April 1996)		
	BU	Hughes, D.P.M. and Crispe, I.N. "A Naturally Occurring Soluble Isoform of Murine Fas Generated by Alternative Splicing," <i>J. Exp. Med.</i> 182:1395-1401 (November 1995)		
	BV	Kischkel, F.C. et al., "Cytotoxicity-dependent APO-1 (Fas/CD95)-associated proteins form a death-inducing signaling complex (DISC) with the receptor," <i>EMBO J.</i> 14:5579-5588 (November 1995)		
	BW	Malik, F. et al., "Polyethylene Glycol (PEG)-modified Granulocyte-Macrophage Colony-stimulating Factor (GM-CSF) with Conserved Biological Activity," <i>Exp. Hematol.</i> 20:1028-1035 (1992)		
	BX	Morpurgo, M. et al., "Covalent Modification of Mushroom Tyrosinase with Different Amphiphilic Polymers for Pharmaceutical and Biocatalysis Applications," <i>App. Biochem. Biotech.</i> 56:59-72 (January 1996)		
	BY	Old, L.J. "Tumor Necrosis Factor," <i>Scientific American</i> 258:59-75 (1988)		
	BZ	Rothe, M. et al. "TRAF2-Mediated Activation of NF- $\kappa$ B by TNF Receptor 2 and CD40," <i>Science</i> 269:1424-1427 (September 1995)		
	CA	Stanger, B.Z. et al. "RIP: A Novel Protein Containing a Death Domain That Interacts with Fas/APO-1 (CD95) in Yeast and Causes Cell Death," <i>Cell</i> 81:513-23 (May 1995)		

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Sheet 4 of 4

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CB	Tartaglia, L. A. et al., "Tumor Necrosis Factor's Cytotoxic Activity is Signaled by the p55 TNF Receptor," <i>Cell</i> 73:213-216 (1993)		
CC	Tewari, M. and Dixit, V.M. "Fas- and Tumor Necrosis Factor-induced Apoptosis Is Inhibited by the Poxvirus <i>crmA</i> Gene Product," <i>J. Biol. Chem.</i> 270:3255-3260 (February 1995)		
CD	Vorobjev, P. E. et al., "Oligonucleotide Conjugated to Linear and Branched High Molecular Weight Polyethylene Glycol as Substrates for RNase H," <i>Nucleosides &amp; Nucleotides</i> 18:2745-2750 (November-December 1999)		
CE	Yoon, S.T. et al., "Both High and Low Avidity Antibodies to the T Cell Receptor Can Have Agonist or Antagonist Activity," <i>Immunity</i> 1:563-569 (October 1994)		

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